

formula $\text{Li}_x(\text{K}_{1-y}\text{Na}_y)_{1-x}(\text{Nb}_{1-z}\text{Ta}_z)\text{O}_3$, wherein $x = 0.001$ to 0.2 , $y = 0$ to 0.8 , $z = 0$ to 0.4 , and at least one additive selected from the group consisting of Cu, Li and Ta.

P1
60%
~~4.16~~ (Amended) An alkali metal-containing niobate-based piezoelectric sintering material composition comprising a solid solution represented by a composition formula $\text{K}_{1-x}\text{Na}_x\text{NbO}_3$, wherein $x = 0$ to 0.8 , and Cu as an additive present in an amount of 0.001 to 5 mol%.

~~4.22~~ (Amended) A method for producing an alkali metal-containing niobate-based piezoelectric sintering material composition, comprising:

D2
adding an additive powder containing at least one element selected from the group consisting of Cu, Li and Ta to a powder of niobate represented by formula ANbO_3 , wherein A is an alkali metal, then blending these powders together;

molding said blended powders and sintering the same, and

treating the resulting sintered substance to impart piezoelectricity thereto,

wherein said additive powder is 0.001 to 5 mol% of Cu, and the blended powder of a niobate is $\text{K}_{1-x}\text{Na}_x\text{NbO}_3$, wherein $x = 0$ to 0.8 .

~~4.22~~ (Amended) A method for producing an alkali metal-containing niobate-based piezoelectric sintering material composition, comprising:

adding an additive powder containing at least one element selected from the group consisting of Cu, Li and Ta to a powder of niobate represented by formula ANbO_3 , wherein A is an alkali metal, then blending these powders together;

molding said blended powders and sintering the same, and

treating the resulting sintered substance to impart piezoelectricity thereto,

wherein the blended powder of a niobate is $\text{Li}_x(\text{K}_{1-y}\text{Na}_y)_{1-x}(\text{Nb}_{1-z}\text{Ta}_z)\text{O}_3$, wherein $x = 0.001$ to 0.2 , $y = 0$ to 0.8 , $z = 0$ to 0.4 .

Please add the following Claim 30:

~~Q30~~ (New) A method for producing an alkali metal-containing niobate-based piezoelectric sintering material composition, comprising:

adding an additive powder containing at least one element selected from the group consisting of Cu, Li, and Ta to a mixture of a powder of precursor compounds for a niobate, then blending these powders together;

molding said blended powders and sintering the same; and

treating the resulting sintered substance to impart piezoelectricity thereto,

wherein said blended powder of niobate is $\text{Li}_x(\text{K}_{1-y}\text{Na}_y)_{1-x}(\text{Nb}_{1-z}\text{Ta}_z)\text{O}_3$, wherein $x = 0.001$ to 0.2 , $y = 0$ to 0.8 , $z = 0$ to 0.4 .

BASIS FOR THE AMENDMENT

The claims have been amended as amended in the non-entered amendment filed November 23, 2001, except that Claim 17 was not amended, Claim 25 was cancelled, and Claim 30 was modified by omitting "represented by the formula ANbO_3 , wherein A is an alkali metal," and changing "the" to --a-- before "niobate". In addition, Claim 22 and 23 were further amended, and Claim 30 further modified, to include a step of --treating the resulting sintered substance to impart piezoelectricity thereto--, which step was unintentionally omitted from Claim 19 (but supported by original Claim 7) when Claims 1-12 were cancelled and replaced with Claims 13-24 in the amendment filed June 21, 2001. See also the specification at the paragraph bridging pages 10 and 11.

No new matter is believed to have been added by the above amendment. With entry thereof, Claims 15-18, 22-24, 29 and 30 will be pending in the application.